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The Public Choice of Elder Abuse Law

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ABSTRACT

This interdisciplinary study finds that the way laws are written and treated by state regulators measurably affects bureaucratic performance: the care taken by legislatures and state agencies in developing domestic elder abuse law affects how lower-level bureaucrats investigate and reporte abuse. Perhaps more interesting, however, are two robust findings about state law making. Both legislator characteristics (here, being middle-aged or slightly older) and lobbying by seemingly the most important interest group (here, the American Association of Retired Persons [AARP]) sometimes have an unexpected effect. We surmise that these legislators and lobbyists find other issues both more politically attractive and more pressing since elder abuse is almost exclusively confined to the very old and helpless. However, the presence of state AARP lobbyists does predict more concern for the elderly at the administrative level. The difference between legislative and regulatory lobbying may thus reflect the differing public scrutiny given to the two.

1. INTRODUCTION

The population of elderly at risk for abuse by caretakers is large and continues to increase. At the same time, state governments, faced with

shrinking budgets, need guidance about how to allocate the resources they have. From an academic perspective, theories developed by students of government need empirical testing.

This study by an interdisciplinary team at the University of Iowa finds that law—the way laws are written and treated by state regulators—does have a measurable effect on bureaucratic performance. That is, the care taken by legislatures and state agencies affects how lower-level bureaucrats do their jobs. Perhaps more interesting, however, are two robust findings about state law-making behavior. Both legislator characteristics (in this case, being middle-aged or slightly older) and lobbying by what would seem the most important interest group (in this case, the American Association of Retired Persons [AARP]) sometimes do not have the effect we might expect. At first blush, it would seem logical for these variables to predict greater concern for elders at risk of abuse. In fact, they have the opposite effect in some of the models regardless of the way particular equations are specified, exactly how the variables are specified, and whether or not they are interacted. We surmise that for these legislators and lobbyists there are issues that seem more pressing because elder abuse is almost exclusively confined to the very old (over age 85) and helpless.[1] (On the other hand, the presence of AARP lobbyists in state capitals consistently does predict more concern for the elderly at the administrative, rather than the legislative, level.)

The elderly currently live long enough to use up most of the resources they have saved, and perhaps more, leaving debts to nursing facilities and hospitals.[2] We have accomplished enough in medical technology to sustain the physical body past the point where mental activity has

1. This is not idle speculation. The American Association of Retired Persons (AARP) Issues and Legislation Web page (http://www.aarp.org/issues.htm, accessed August 8, 2003) contains 17 entries plus a number of links to more general cites. None of these 17 relates to elder abuse. The issues mentioned include Medicare prescriptions, pension rules and plans, local phone services, the "no call" list, Medicaid, identity theft, and use of the tobacco tax to fund health and long-term care. The AARP does have a statement that elder abuse ought to be prevented in chapter 13 ("Personal and Legal Rights") of *The Policy Book: AARP Public Policies 2004* (http://www.aarp.org/legislative/legipoly.html, pp. 13–3 to 13–5), which says that states should enact criminal laws and that public awareness of abuse should be increased.

2. Life expectancy increased from 54.1 years in 1920 to 75.4 in 1990 (U.S. Census Bureau 1992, p. 76, table 104). These changes have come in part through eradication of some diseases and advances in surgical technology (U.S. Census Bureau 1993, pp. 23–30). For figures on the wealth, or lack of it, possessed by elderly Americans, see Holden and Smeeding (1990, p. 191 and table 10) and Cisneros (1989, p. 789, n.19).

reached a point of diminishing returns, in fact, to a point where the old person may actively dislike his or her existence.[3] At the same time, the independence fostered by Social Security has had social costs. Because they expected to be independent, adult Americans have not perhaps been as attentive to fostering ties with their growing children (Cox and Stark 1994; Brinig 1994) as they might have been some years ago.[4]

Thus, to the extent that we have chosen public or self-support of the elderly over the historical family protection, we have closed off a vital link in the intergenerational structure of society. Gary Becker makes this argument in his 1993 Nobel address[5] when he says, "[P]arents who do not need support when they become old do not try as hard to make children more loyal or guiltier or otherwise feel as well-disposed toward their parents. This means that programs like social security that significantly help the elderly would encourage family members to drift apart emotionally, not by accident but as maximizing responses to those policies" (Becker 1993, p. 401).

In order to ensure the elderly person at least the minimum necessities of life, 19 states, the District of Columbia, and Puerto Rico have statutes requiring adult children to support their indigent and needy parents (see Table 1). Unless other children in the family complain or the parents do not have adequate Social Security or other pensions, these statutes remain hidden and rarely used. (Casual observation reveals that most people, including graduating law students, are not aware that they exist.)

In the 20-year period from 1980 to 2000, states have shown a spate of interest in more dramatic, physical kinds of abuse as the population ages (especially the population over age 85; see Table 2).[6] Although the

3. Posner (1995, pp. 200–222 and figure 5.1) reports that approximately 10 percent of the population in any given age bracket says that they are not too happy. The portion of octogenarians stating that they are very happy is about the same as for people between 30 and 39, about 30 percent. However, I have heard my own parents' friends talk of "doing a Kevorkian," and many have joined the Hemlock Society. Use of Kevorkian's suicide machine was permanently enjoined in *People v. Kevorkian*, 534 N.W.2d 172 (Mich. Ct. App. 1995).

4. Think of the Harry Chapin tune "The Cat's in the Cradle." Bernheim, Shleifer, and Summers (1985, p. 1074) argue that the general decline in attentiveness of adult children to parents ties to the introduction of Social Security.

5. See also Bernheim, Shleifer, and Summers (1985) and Brinig (1994) on how a change in provision for elderly parents affects both positive and negative investments in minor children.

6. The percentage over 85 was .2 percent in 1920 and 1.2 percent in 1990, according to Vobejda (1992). By the 2000 census, the percentage of over-85 citizens increased to 1.5 percent (Hetzel and Smith 2002, p. 2 and table 1). The decline in the over-65 population

Table 1. State Statutes That Require Support of Elderly Parents

State	Statute	Subject	Date of Enactment
Arkansas	Arkansas Statutes Annotated, secs. 675, 675, 473	Mental health services	1947
California	California Family Code, sec. 4400	General	1872
District of Columbia	D.C. Code, secs. 675, 473	General	1965
Indiana	Indiana Code, secs. 675, 675, 473	Necessaries if parent provided	1947
Iowa	Iowa Code, sec. 252.2	General	1851
Kentucky	Kentucky Revised Statutes, sec. 430.050	General	1974
Louisiana	Louisiana Civil Code, sec. 229	Necessities (reciprocal)	1804
Maine	Maine Revised Statutes, title 22, sec. 4319	Rental payments	1954
Maryland	Maryland Code Annotated, Family Law secs. 675, 473	Necessaries	1957
Montana	Montana Code Annotated, secs. 675, 675, 473	Necessaries unless excused by parental malfeasance	1915
Nevada	Nevada Code, sec. 428.070	Hospitalization	1851
New Jersey	New Jersey Statutes Annotated, sec. 44:1–140	O- n public assistance	1924
Ohio	Ohio Revised Code, sec. 2912.21	General	
Oregon	Oregon Revised Code, sec. 109.010	General	
Pennsylvania	Pennsylvania Consolidated Statutes Annotated, title 62, sec. 1973(a)	General	1937
Puerto Rico	Puerto Rico Laws, title 8, sec. 503	General	1986
Rhode Island	Rhode Island Annotated Laws, secs. 675, 675, 473	General	1917
South Dakota	South Dakota Codified Laws, secs. 675, 473	Necessaries	1939
Texas	Texas Health and Safety Code, sec. 286.082(c)(2)(a)	General	1991
Utah	Utah Code, secs. 675, 675, 473	General	1898
Vermont	Vermont Code, title 15, sec. 202	General	1973
Virginia	Virginia Code, secs. 20-88	General	1952
West Virginia	West Virginia Code, secs. 675, 675, 473	General	1936

study here involves domestic adult abuse only, we suspect that the necessarily impersonal care of the institution will produce still more abuse in the nursing home setting.

Surveys of adult protective service investigators point to what is already a shockingly high level of elder abuse in the United States. Investigators for 47 states reported 242,430 investigations of domestic elder

from 12.6 to 12.4 during the last decade was due to the 65–74 group, who were born during the relatively low birth rate 1920s and 1930s (Vobejda 1992).

Table 2. Population 65 Years and Over by Age Group: 1990 and 2000

Age	1990		2000		Percent Total Population		Percent Change
	Number	Percent	Number	Percent	1990	2000	
65+	31,241,831	100	34,991,753	100	12.6	12.4	12
65–74	18,206,558	58	18,390,986	52.6	7.3	6.5	1.6
65–69	10,111,735	32.4	9,533,545	27.2	4.1	3.4	−5.7
70–74	7,994,823	25.6	8,857,441	25.3	3.2	3.1	10.8
75–84	10,055,108	32.2	12,361,180	35.3	4	2.6	21.1
75–79	6,121,368	19.6	7,415,813	21.2	2.5	2.6	21.1
80–84	3,933,739	12.6	4,945,367	14.1	1.6	1.8	25.7
85–94	2,829,728	9.1	3,902,349	11.2	1.1	1.4	37.9
85–89	2,060,247	6.6	2,789,818	8	.8	1	35.4
90–94	769,481	2.5	1,112,531	3.2	.3	.4	44.6
95+	250,437	.8	337,238	1	.1	.1	34.7

abuse for 1999, that is, 5.9 investigations per 1,000 elders.[7] The 38 states for which investigators responded reported 102,879 substantiations of abuse, amounting to 2.51 substantiations per 1,000 elders. The geriatric population rate is continuing to grow rapidly, and the projected number of persons 65 and older will be 18 percent of the population in 2020, compared with 13 percent in 1990 (Kapp 1995). The absolute number of incidents will predictably rise, given current population trends.

An American Academy of Family Physicians position statement (1999) on elder abuse poignantly says, "[R]ecognizing that increased age frequently leads to increased dependence in an atmosphere of constricting health care financing; a decrease in the availability of suitable, affordable accommodations; and reduced social interactions, it follows that the risk of geriabuse and neglect may well increase." Thus not only the absolute numbers of elders but also the frequency of abuse may grow.

2. UNIVERSITY OF IOWA ELDER ABUSE STUDY IN THE CONTEXT OF PUBLIC CHOICE

The current paper details the types of and motivations for state elder abuse law, including interpretive regulations and legislation. Further, we

7. As a point for comparison, during the same year there were 11.8 reported victims of child abuse, on which, according to the elder abuse legislation introduced in 2002 by Senator John Breaux, $6.5 billion was spent last fiscal year. When institutional abuse is added to domestic elder abuse, the numbers are probably greater than for child abuse, especially since we are here comparing reported abuse to investigated elder abuse, a much smaller subset. There are currently 46 million persons over age 60 in this country.

examine the actions taken by state social welfare workers who are charged with investigating and substantiating whether elder abuse occurs. What we do not do here is discuss how much abuse occurs or how it might be prevented.[8] We cannot overemphasize the importance of such a study, but we note that it was beyond the scope of the one reported here.

Our interdisciplinary team at the University of Iowa studied reported elder abuse under an unrestricted grant from the Centers for Disease Control and Prevention[9] to evaluate the impact of state adult protective service legislation and regulation on the rates of investigated and substantiated domestic elder abuse. We recognize that elder abuse is a prevalent and serious health issue. The best national estimate is that approximately 550,000 elderly persons experience domestic abuse compared with an estimated 400,000 new events of congestive heart failure occurring in the United States annually (U.S. Department of Health and Human Services 1994). We designed a survey to collect all domestic elder abuse reports, investigations, and substantiations for each state and the District of Columbia for fiscal year 1999. We independently obtained and qualitatively reviewed each state's statutes and regulations that pertain to adult protective services.

Three sets of public decision makers might influence elder abuse legislation and its implementation: legislators, state welfare officials, and adult protective service investigators. Various factors motivate each set's behavior, and discussion of the results of the study will refer to these varying groups of influences.

According to public choice scholars, legislators have at least three categories of influence on their behavior (Mueller 1989, pp. 229–44; Mashaw 1997, pp. 23–25; McChesney 1987, p. 170).[10] First, they must confront their voting public (Rachlinski and Farina 2002, pp. 568–69). Are they acting within their constituents' expressed preferences and their own campaign promises so that they will be most likely reelected? Second, not surprisingly, they act according to their own true preferences.

8. Studies that attempt to discover the prevalence of and contributors to abuse include Pillemer and Finkelhor (1988) and Jogerst et al. (2000).

9. See the acknowledgment note for details.

10. McChesney (1997, p. 170) writes, "The one unambiguous solution for reducing rent extraction is reducing the size of the state itself and its power to threaten, expropriate, and transfer." See also Mueller (1989, p. 245): "[T]he best and simplest way to avoid the rent-seeking problem is to avoid establishing the institutions that create rents, that is, the regulations and regulatory agencies that lead to rent seeking." See also Farber (1992, p. 59), Revesz (1997, pp. 542–43), and Schuck (1997, pp. 565–66).

This influence may be as simple as voting according to party line or may be deeply influenced by family situation and personal ethics (Farber and Frickey 1991, pp. 24–25, 28–33; Macey 1986, pp. 225–27; Sunstein 1984, p. 1690–91).[11] Third, they must pay at least some attention to special interest groups whose support they will need to fund election campaigns in the future and to guarantee the perquisites of office (Farber and Frickey 1991, pp. 21–33; Schuck 1997; Peltzman 1984, pp. 192–206; Weingast, Shepsle, and Johnsen 1981).[12]

The second level of public official concerned with elder abuse law and its implementation involves the social welfare bureaucrat. These state-level officials may enact regulations that further specify types of abuse or other factors that govern investigations and will almost certainly control the funding allocations at the state level.[13] Sometimes the state social welfare system may allocate personnel for elder abuse investigation, or it may decide whether the same personnel investigate child and elder abuse. Public officials, although seldom elected, face constraints as well.[14] They may be concerned with their reputation among the people they will encounter when they leave public service (the revolving door syndrome; see Levmore 1998, p. 2101; Becker 1983, pp. 371–73; Landes and Posner 1975, p. 877; Macey 1986, pp. 231–32; Stigler 1971, pp. 11–12; Tollison 1988).[15] They may also attempt to

11. Rachlinski and Farina argued (2002, pp. 553–54) that fallibility, rather than bad motivations, causes most regulatory mistakes.

12. The classical concern about this is found in *The Federalist No. 10* (James Madison).

13. The one qualification would be line-item budgeting. There have been marked differences in the speed with which elder abuse legislation has become law in the various states. Colorado (1990) and Idaho (1991) enacted their statutes recently, while others (Florida, South Carolina, and Virginia) had theirs in place many years earlier (1974). We will consider funding allocation from the federal block grants to states later in this paper.

14. Public choice theory explains statutes and regulations as the result of competing interest groups influencing the rule-making process. See Farber and Frickey (1991, 1987). Stewart (1975, pp. 1684–87) provides a summary of the discussion of agency "capture" by special interests. The original article was by George Stigler (1971) and concerned regulation of the fur trade.

15. For a discussion of the importance of networks and revolving doors in executive agencies, see Coglianese (1997, p. 1330). Sometimes they will of course be doing so for good reasons—their own preferences follow those of the groups (Mikva 1988). For examples involving regulation of the legal profession, see *New York Law Journal* (1992, p. 1) and Office of Thrift Supervision (1992). Harris Weinstein was an associate at Covington and Burling from 1962 to 1967, and from 1967 to 1969 he served as an assistant to the solicitor general of the United States. In 1969, he returned to Covington and Burling, was made a partner in 1971, and remained there until 1990 when he became chief counsel at the Office of Thrift Supervision (OTS) (1992). In 1992, Weinstein returned to Covington and Burling (*New York Law Journal* 1992, p. 1). For a discussion of enforcement pro-

maximize their budgets (Aranson 1981; Blais and Dion 1991; Niskanen 1971, p. 197; Stigler 1975, p. 178; Buchanan, Tollison, and Tullock 1980; Aranson, Gellhorn, and Robinson 1982, pp. 37–62; Johnson and Vass 1983; Peltzman 1984) or the power of their agency in the state cabinet.[16]

Finally, local protective services investigators will implement domestic abuse law. They too will be motivated by their own preferences and constrained by their caseloads and job descriptions. Many of them have chosen a career in public welfare out of a sense of vocation[17] since it requires substantial education and does not pay particularly well. (Recently, it may also subject the worker to the threat of lawsuits, if not financial liability, if mistakes are made.)[18] One of the continual conflicts we see in this study is that some investigators do both child and elder abuse investigations.[19] If they were hired to investigate only child abuse, they may resent the new assignment (and it may be added to the existing caseload) or they may just feel it detracts from a "true mission."[20] Some of these investigators will not even have been trained adequately for the

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ceedings brought by Weinstein on behalf of the OTS against lawyers and other professionals, see Paltrow (1994, p. D1), which discusses private-sector jobs landed by several top government enforcement officials, including former Securities Exchange Commission chairman David Ruder at Baker and McKenzie. See generally Painter (1996, pp. 169–70). For a discussion of agenda control among agency interest groups, see Zywicki (1999, pp. 885–86).

16. Thus, they may seek to increase the number of people working under them, the number of cases served, the number of reports issued, and so forth (see Rachlinski and Farina [2002, p. 568] for sources).

17. Rightfully so. As Lynn Stout (2001, p. 19) puts it, "*Homo economicus* is a sociopath." She continues, "People can be motivated to adopt other-regarding norms; to follow norms even when they have no external incentives to do so; and to enforce norms against others even when this is personally costly. But they can only be motivated to do these things when the social conditions are favorable."

18. Although they may make some mistakes (Slovic, Fischhoff, and Lichtenstein 1982, pp. 475–78; Camerer, Loewenstein, and Weber 1989), because they are able to remain detached from the emotions of particular cases and see across a broad spectrum of them, they are less likely to make cognitive mistakes than more direct participants (Rachlinski and Farina 2002, p. 559).

19. The tendency to see things only in terms of one's own expertise is discussed by Rachlinski and Farina (2002, p. 560, citing Slovic, Fischhoff, and Lichtenstein [1982, p. 477]). The average amount of training received by adult protective services investigators is 1 week, while the range was from less than 1 hour to more than 3 weeks.

20. Holden (2000, p. 1) warned his colleagues of "the folly of recruiting and helping to educate human beings and at the same time pummeling them into conscious disdain for what they do."

distinctive signs and problems of elder abuse cases.[21] Some of the agencies are currently overwhelmed with the size of their caseload even before elder abuse is added to it.[22] We turn now to our models, after which we will discuss how we obtained each variable. Finally, we will present and discuss results.

3. TWO SIMPLE MODELS

The law making we can analyze using state-level data involves decisions made by the legislature in the first instance and those made by state-level bureaucrats, who enact and implement regulations, in the second. We therefore present two models, one for each of these types of public decision making. We can assess the effects of each type on the lower-level bureaucrats by looking at the actual numbers of elder abuse interventions (investigations, substantiations, and the ratio of these) in the second of a system of equations.

3.1. Model 1: Law from Legislation

As a first step, legislators enact elder protection laws, responding to the federal mandate but also to the concerns of their own constituents and interest groups. We posit a model that seeks to explain differences in these laws among the U.S. states. In general, this model specifies that the length of the statute (W, or Word Count) is influenced by the demographic makeup of the legislature itself (O, or Older Legislators), the ease with which legislation passes (that is, the lack of many amendments by the other legislative chamber) (SPD, or Same Party Dominant), and the role played by the relevant interest group, the AARP (A, or AARP Lobbyists/Legislator).

The word count (W) is a relevant indicator of differences between states that will show up in the second equation because the statute length influences the social workers who are charged with investigating dependent abuse. As discussed above, they may view a detailed set of laws as showing interest on the part of the legislature (or a mandate to do

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21. For a discussion that suggests that the judiciary and public oversight may remedy these problems, see Rachlinski and Farina (2002, pp. 588–89).

22. For example, the city of New York child welfare system was (see *Marisol A. v. Guiliani*, 929 F. Supp. 662 [S.D.N.Y. 1996], aff'd, 126 F.3d 372 [2d Cir. 1997]) and the District of Columbia now is (see *LaShawn A. v. Barry*, 144 F.3d 847 [D.C. Cir. 1998]) in receivership after massive lawsuits that noted proliferating unconstitutional conditions. Even in Iowa, there are many complaints about the caseload (Okamoto 2003, p. B1).

thorough investigations), and they may also feel that they have more or less guidance for what they are supposed to do. Thus, equation (2) will also feature W. However, it would be naive to suggest that legislative influences are the only motivators for those workers. The social workers who substantiate reports of abuse (S, or Substantiation Rate) will take these factors into account, but they also should be substantiating on the basis of how much abuse exists in their area. Although we must emphasize that we do not know how much abuse there actually is, studies do show some of the predictors of increased abuse. These include the proportion of elders who do not live alone (EW, or Elders Not Living Independently), population density (PD, or Population Density), and income (I, or Median Family Income):[23]

$$W = f(O, \text{SPD}, A) \tag{1}$$

and

$$S = f(W, \text{PD}, I, \text{EW}). \tag{2}$$

We hypothesized that as the number of older legislators relative to the total number in the legislature increased, so would the length of the statutes.[24] We also surmised that having both chambers controlled by the same political party should result in shorter statutes and that an increased number of AARP lobbyists per legislator should increase statute length.[25] In equation (2), we predicted that statute length would

23. In equation (2), instrumental variables include the rate of people over age 65 living with others, population density, median family income, and the variables that are used to predict word count: Population Elderly, Same Party Dominant, AARP Lobbyists/Legislator, and the proportion of the population living alone.

24. We ran the same set of equations using the number of legislators over age 55 as the proportion of the smallest chamber (invariably, the state senate).

25. In the analysis section, we will show that it did not. In fact, regardless of how we ran the equations (AARP lobbyist total, ratio of AARP lobbyists to the number of senators, ratio of AARP lobbyists to the size of the whole legislature), the coefficients were negative and insignificant. The same counterintuitive results appear for older legislators, although this time the coefficients were significant. Whether it was the ratio of over-55 legislators to the entire legislature, older legislators total, or the ratio of over-55 legislators in the senate to the size of senate, the coefficients were negative (and significant at the .05 level). At the our referee's suggestion, we also reran all the above equations with legislators over age 60. We had the same negative and significant coefficient, although a lower R value (and an insignificant result in the two-stage least squares equation of Table 5). We also tried including an interaction term between various specifications of O and AARP, but this was not significant and did not change the signs or significance of the various O and AARP variables. As with all regressions, we will be happy to supply data, syntax, and output on request.

positively affect substantiations and that as abuse increased, so would the investigations of it. That is, as the number of people over 65 increased and alcoholism increased, so should abuse.[26] Increased education and income should have decreased abuse. More abuse occurs in rural areas, where the elder is less visible and alternatives (like elder respite care) are not as available. In addition, the social worker would have to travel a greater distance to cover her caseload. We therefore guessed that population density would be negatively related to investigations.

3.2. Law from Regulation

Sometimes when regulators make law, they do so in a way very similar to that of elected legislators. An example of this kind of legislating can be found in Table 6, which predicts the number of definitions of abuse included in regulations. Sometimes, however, they act more directly through allocating positions, such as deciding that the same investigator will investigate child and elder abuse (Table 8). Sometimes they will do so through policies like the one modeled here for the way records are kept (Table 10). In some states, every report of abuse must be investigated and followed through the system. In others, only some reports are recorded and investigated; those felt not to be serious or referred to some other agency are not "counted" for official records. We were very interested in this difference in accountability and hypothesized that states with more careful control over records would have a higher ratio of substantiations to investigation (or efficiency).

The first step in this second model was to see whether the state bureaucrats chose the "must keep track of all reports" system or not (KT, or Keep Track).[27] This choice might be affected directly by the number of lobbyists (A, or AARP Lobbyists per Legislator, and B, or Nursing Home Beds per Capita) as well as the size of the elderly population relative to the population in general (E, or Population Elderly) and relative to the amount given to fund adult protective services (F).

In equation (4), this calculated probability (KT) will affect the per-

26. Because there are only a maximum of 47 observations (and not all states reported both investigations and substantiations), any system of equations must not use too many variables. We therefore included Population over 65, Population Density, and Median Family Income in Table 5. Alcoholism, the rate of health care providers, and the high school graduation rate all performed with the expected sign, but none of these was statistically significant.

27. Other equations reported in the tables are not described in notation but follow similar conventions.

formance of those doing the investigating (adult protective services [APS] workers) along with the relative strength of the old/young population ratio (RA), the resources available from social security for the adult protective services (SB, or Social Security Block Grant [SSBG]), and the amount of child abuse that must be investigated and substantiated (CA, or Child Abuse):

$$KT = f(A, B, E, F) \tag{3}$$

and

$$RT = f(KT, RA, SB, CA). \tag{4}$$

We predicted that state agencies would be more likely to keep track of all reported abuse in states where there were relatively more elderly (although this might also indicate more abuse and therefore less attention could be paid to each report) and where they were successfully lobbied by interest groups for the elderly and for nursing homes. They would also be more likely to choose this method in states with relatively higher amounts given to fund APS.

We hypothesized that states that chose to monitor reported abuse more closely would have a higher rate of substantiations. This rate also should be influenced by the relative willingness of the state to fund APS. More abuse might be expected with a higher child abuse rate (since other studies have found these to be highly correlated); although income and abuse itself are inversely related, the sign on income is ambiguous since higher-income people are also more likely to report abuse.

4. EMPIRICAL ANALYSIS

4.1. Dependent Variables

Our interdisciplinary team originally hypothesized that differences in the law would have little or no effect on the investigation or substantiation of domestic elder abuse, at least on the statewide reporting level. We tested this hypothesis in a number of ways. The first was the rate of investigations per population over age 60. This could be an indicator of the real amount of abuse in a state or the sensitivity of the reporting population to the issue of elder abuse. The second was the raw number of substantiations of these investigations per affected population. Third, we considered the ratio of the two, which might be considered a measure of APS efficiency.

4.2. Legal Variables

Variables of interest, which are considered in separate equations, included several measures of the depth of legislative or administrative interest in the issues of elder abuse. These included two simple word counts: the number of words in the statutes governing APS and the number of words in the definitions of abuse.[28]

The state laws analyzed for this study were those that address elder abuse in domestic settings, which are administered typically by state APS programs or state aging agencies. Many states have additional legislation, not considered here, pertaining to elders such as the laws required by the Older Americans Act and Long-Term Care Ombudsman Program. State also have laws that prohibit and specify punishment for abuse in institutions. These data are separately collected, and agencies other than those involved here enforce the laws.

Another way of looking at the problem is to examine the proliferation of types of abuse included in the statutes and regulations. The types most frequently represented include abuse not otherwise specified, abandonment, emotional abuse, exploitation, neglect, physical abuse, self-neglect, and sexual abuse. Self-neglect, with its display of sensitivity to the particular problems of dependent elders, seemed significant enough to test as a separate measure but turned out not to be statistically significant. Ten states include self-neglect as an independent definition of abuse, while 21 states subsume self-neglect in their neglect definition.

Similarly, states that reported the number of reports that were begun (as opposed to simply the number of investigative files that were opened) seemed more likely to be doing careful screening of complaints as they were received. The last inquiry of this type involved mandatory reporting. We considered whether it made a significant difference if particular individuals were compelled by law to report abuse and particularly if there was a definition or specification of those required to report. We considered the amount legislators were willing to spend for APS (per

28. Earlier work found that the longer and more complex the bill (estimated by page count), the greater the amount of government spending required by the law (Kimenyi and Tollison 1995, p. 155 and table 1). Similarly, the length of a state constitution, measured by the number of words, was used as a proxy for the durability of past legislative contracts, "since longer constitutions reflect the survival of past amendments from nullification by past legislators and the judiciary" (Crain and Tollison 1979, p. 171). Constitution length turned out to be significantly related to the number of amendments offered by the legislature (Kimenyi and Tollison 1995). The number of words in the regulations turned out to be unrelated to any of the dependent variables.

person served) and whether the state put different workers in place to investigate elder and child abuse allegations.

As previously noted, not all law comes from state legislatures: it comes also from the administrators who write regulations and carry out the legislative mandate and, although not yet in the elder law context, from the courts. Although there might be political support for elder protective services,[29] concern on the administrative agency level might also affect the number of investigations or their efficiency. We therefore considered whether there were regulations at all, how many regulations contained definitions, and whether these definitions did anything other than mimic what the legislature had already enacted.

Definitions in regulations may actually help APS workers know what to look for. Compared with statutes, agency-made rules may be clearer or in language that is easier for other people in the profession to understand. The fact that additional definitions of abuse are spelled out may also give the caseworkers confidence that people in the agency care about elder abuse issues. It turns out that the number of definitions is positively related to greater accuracy.

Many laws have little impact on people's day-to-day behavior. With elder abuse law, schemes that matter have some identifiable characteristics, even in a preliminary investigation. Two critical features of domestic elder abuse legislation are, first, whether the law holds people, including health professionals, accountable and, second, whether the laws increase the expertise of the people charged with making judgments about abuse.

Some states begin tracking abuse at the investigation stage. We hypothesized that results from these stages would differ from those in states that begin tracking with an abuse report. We hypothesized that the "reporting" states, because of their greater care at initial stages, would have higher investigation and substantiation rates.

In situations where wrongdoing is alleged, there is often much more success in smaller populations where the investigator knows the perpetrator (Chambers 1979, pp. 90–114; Sherman 2001, p. 264). The accused will also be more likely to confess, making substantiations more likely. Too large an elderly population may either overwhelm an APS office or may increase the levels of bureaucracy to the point where little

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29. Bills are relatively easy to introduce compared with the cost of securing their passage (Brinig, Holcolmbe, and Schwartzstein 1993, p. 378).

"front-line" (as opposed to administrative) work gets done.[30] To the extent that the elderly population (or sometimes the ratio of elders to young people) affects both the structure of the law and the way it is enforced, we treat it as exogenous.

Where the legislature has obviously spent a good deal of time and effort on elder protective services (by writing a long and detailed statute), caseworkers and their supervisors may feel that they are doing something that is politically important as well as personally challenging and may be more likely to carry out investigations. In a related way, the investigator whose mission is well defined may feel more authority to intervene in families by doing the investigation.

In some jurisdictions where reporting is not required, volunteers may staff telephone hotlines. If the volunteer decides that further investigation is not required, that is the end of the matter unless reports are kept and tracked. Some actual abuse cases may be missed entirely, or mistakes by the untrained volunteer who is forwarding information may change the course of the whole investigation.

Public choice, or the study of behavior by government entities and the people acting in them, assumes certain behavior by bureaucrats (Niskanen 1971, p. 114). In particular, the heads of agencies, regardless of their political cast, will choose to maximize their own importance and power. Usually they will do this by maximizing their budgets, sometimes by employing more people or demonstrating tangible "results" (here, perhaps, either in the bulk of the regulations they generate or in the number of reports their agency can claim to file).

For people who work as teams, when individual performance cannot easily be monitored, the natural tendency is to shirk (Alchian and Allen 1983; Cheung 1983, p. 3) or to show up but to work as little as possible. Requiring that reports be tracked forces APS workers and their supervisors to be accountable. It permits each worker's level of effort (and, hopefully, success with elders) to be monitored.

Further, the more each caseworker drafts and reviews abuse reports, the better he or she may become at recognizing patterns of abuse that might be missed if each case is dealt with in isolation. Written reports also permit knowledge, over time, of repeated complaints about particular families.

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30. Compare fears in *Parham v. J.R.*, 442 U.S. 584, 605–6 (1979), over physician time devoted to hearings instead of care.

4.3. Public Choice Analysis

Although some of the relationships that were discussed above may not require further exploration, others that involve legal characteristics seem perplexing. Why might variables such as word count or the number of abuse definitions contained in the regulations have any meaningful relationship to the rates of investigation or substantiation of elder abuse or the ratio between substantiations and investigations? The answer is not intuitively obvious. However, the variables might correlate because word count or the number of definitions actually proxied for, or were symptomatic of, something else. This paper has already discussed one alternative: that having more explicit direction could prove helpful to the APS workers dealing with dependent elderly adults. To tease out what was going on, we collected a number of political and other variables that might explain why particular statutes proved more verbose or particular regulations more precise. When the equations were respecified to include political as well as socioeconomic dimensions, the relationships became clearer and the results were interesting indeed.

Turning to a description of the political variables, for each of the states and the District of Columbia, we collected a number of variables. We already knew the percentage of the population that was considered elderly according to the state definitions in the APS statutes.[31] This rate reflects the relative size of the population that the legislator considering APS legislation necessarily takes into consideration when writing or voting on legislation.[32] This rate is one of three used in this paper that involve elderly populations. The other two are the number of elderly living with others and the ratio of the elderly to the minor child population. The explanation of what each of these does and when we will use it begins with the percentage of elderly in the population. The sign for this cannot easily be predicted. The elderly who vote (probably not those who will themselves be at risk for abuse in any given period) are likely to prefer allocation of resources to themselves rather than to children. For example, we would predict that they would rather see social services block grants distributed to programs for seniors rather than for after-school care of small children. However, a larger proportion of eld-

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31. Most of these were for adults above age 60. One state counted adults over age 55 and a few over age 65.

32. The most complete economics paper discussing the trade-offs of legislators between interest groups and the voting public is Peltzman (1984). See generally McCormick and Tollison (1981) and Becker (1983).

erly in the population also means a greater number of potential candidates for abuse, a larger nonworking population, and an additional burden for social service agencies. Thus, the ratio of the elderly population to the general population might make a difference because it would reflect both the strain on the APS system and the political clout of the elder population.

To get at this problem, we sometimes use the ratio of the elderly to minor children in the state, which is more apt to reveal power differences and the actual allocation of resources rather than an increase in the potential amount of abuse.

Finally, there is the variable for measuring the percentage of elderly who do not live alone. If this is used as a political variable, there is an increase in sensitivity to the problems of the elderly (by the younger adults with whom they live). If this is used as a predictor of actual domestic abuse, the sign should be unambiguously positive, since we are looking at domestic abuse in this study, and domestic abuse should increase as the number of elders living with relatives increases.[33] Our intuitions do not lead us to predict that the efficiency with which the APS investigators work (the ratio of substantiations to investigations) should change with the size or relative size of the elderly population, so Table 7 contains none of these variables.

More directly, the legislators might be influenced by the lobbyists for the elderly, most prominent of which is the AARP. We therefore collected data on the number of lobbyists for the AARP for each state.[34] Rather than use raw numbers for most equations, we divided this by the total number of legislators.[35] Older legislators might have a personal interest in legislation that will shortly protect them, so we also collected the

33. This number was computed by subtracting the percentage living alone from unity. This does not capture those who live in institutions, who also may be subjects for abuse but who are not studied in this paper. This number is less than 20 percent even of the very old, however.

34. We found this by looking at each state's list of lobbyists. Most of these were available on the Internet. A few states reported the information in private correspondence, but one required purchase of the lobbyist list.

35. At the referee's suggestion, we also calculated the ratio of AARP lobbyists to the population. This turned out to be a less successful predictor than the number of AARP lobbyists per legislator, probably because the size of state government in the capital does not increase proportionately with the population.

number of legislators (and calculated rates) who were over age 55.[36] We used these to calculate the proportion of elder legislators for each state. We also sought to measure the effect of a competing situation, or substitute, for the elderly living at home.[37] Dependent elderly who are not cared for by their family live either on their own (and are unlikely to have a lobbying presence) or in nursing home facilities. It would seem possible for those interested in nursing home care to want stronger domestic abuse laws to encourage more residents to enter their facilities. We have already mentioned that we suspect that with its paid and im-

36. We began this laborious process by looking at http://www.vote-smart.org then reviewing each legislator's home page or linked biography. These most often contained dates of birth—we simply selected anyone with a birth date of 1945 or earlier since our data came from 2000. In some instances, where a birth date was unavailable, we calculated from college or high school graduation date or considered service in World War II or the Korean War, membership in the AARP, or large numbers of grandchildren (plus candidate pictures). We did not include information for members newly elected in 2000.

Because of the approximation that was necessary, we did not initially try to estimate the number of those over age 60 (to reflect most of the state statutes, although some were for people over age 55 and some for those over age 65). We chose age 55 initially because it was the lowest cutoff for all states and also because it was just over the mean age for state legislators. See also Pew Center on the States (2003), reporting on the basis of a survey of 771 legislators in January–March 2002 (2 years after the year that we are concerned with) that the breakdown of ages was 18–29, 3 percent; 30–49, 32 percent; 50–64, 45 percent; and 65+, 19 percent; 1 percent refused to answer.

To give an idea of the problems we faced in making these estimates, we report on two state senates (which always contain the majority of the older legislators). Connecticut has 36 senators. Nine of these were over age 55 in 2000. We would estimate that six were probably over age 60. In one case only, we knew a birth date (1929). In one case we knew the senator served in the Navy from 1957–61. Assuming he was at least 18 when he enlisted, that would make him 61 in 2000. One had no information from which his age could be calculated, but said he had 15 grandchildren. Another had no age information but had nine grandchildren. One said he had lived in Stratford since 1944 but was born elsewhere. One woman said she was a retired teacher, and one woman simply appeared from her picture to be over age 65 but had no age-related information. Another three were probably over age 55 but under age 60.

Similarly, in Illinois, there are 59 senators. Of these, 11 were certainly over age 60 (on the basis of a similar mixture of dates, war service, and guesses). Another nine were certainly between the ages of 55 and 60 on the basis of their birth dates. The final group of nine were guesses—most were likely over 55 but of indeterminate age.

Some states reveal this information: in Wisconsin in 2001, there were nine senators and 12 members of the assembly over age 60: the average age for the senate was 52 and for the assembly 47, while the oldest senator was 73. In Minnesota, the senate had 23 members over age 60, with the oldest being 74 and the mean being 54. In the assembly, there were 15 over age 60, and the median age was 48.4. Nationwide, about 64 percent are over age 50, and 19 percent are over age 65. See Pew Center on the States (2003) and *Stateline.org* (http://www.stateline.org) for a discussion of a survey conducted in early 2002 of 771 state legislators.

37. We thank our referee for this suggestion.

personal caretakers, potentially more elder abuse occurs in nursing homes than in domestic situations. However, institutional abuse has long been recognized, criminalized, and prosecuted. The prohibitions occur in different statutes (usually in departments of institutions and agencies rather than departments of human services or aging). Resisting more aggressive protective service statutes would thus not directly affect the nursing institutions. The predicted sign is therefore ambiguous.

In addition, certain structural variables might influence endogenous variables like word count. In particular, domination by different political parties in the two legislative houses (except in Nebraska and the District of Columbia, which are unicameral)[38] or between the legislature and the governor, who would need to approve or veto legislation, might mean that language was added to enable compromises. We therefore collected the political party designation of each state legislator in the year 2000 as well as that of the governor (or mayor, in the case of the District of Columbia). We calculated the proportion of each house that was Democratic and noted whether both houses were or were not on the same side of 50 percent. For those in which both houses were either Democratic or Republican, we also noted cases in which the governor was of the other party (although this turned out to be insignificant in any regression). In some equations, particularly those in which funding was involved, the legislature's tendency toward social intervention might also be important (also using the "percent Democratic" variable). The number of years the statute had been in existence also might matter for its verbosity, since there would be more time to amend the statute and to redefine portions that turned out to be ambiguous. Neither of these last two variables was significant in any equation. Table 3 shows descriptive statistics for these variables.

5. REGRESSION ANALYSIS

5.1. Word Count

We predicted that word count in the APS statutes would be influenced by the ratio of AARP lobbyists to legislators, the ratio of legislators over age 55 to the total number of legislators, and difference in political party between legislative chambers. Results are reported in Table 4.

38. These are available on each state's Web site and also can be found at http://www.vote-smart.org.

Table 3. Descriptive Statistics

	N	Minimum	Maximum	Mean	Standard Deviation
Year of APS statute	42	1,973.00	1,993.00	1,981.7143	5.30203
Population	51	493,782	33,871,648	5,518,076.59	6,164,025.783
Number of assembly	51	13.00	400.00	107.3137	57.30323
Republicans in assembly	50	1.00	251.00	52.0400	35.36109
Democrats in assembly	50	9.00	141.00	55.8000	30.81015
Over age 55 in assembly	51	5.00	181.00	37.1961	25.98924
Number of senators	49	20.0	67.0	39.224	10.5382
Republicans in senate	49	3	36	18.88	8.059
Democrats in senate	49	3	39	20.16	8.250
Over age 55 in senate	49	6	30	16.39	6.852
Party of governor	51	0	1	.37	.488
AARP lobbyists	51	0	26	4.90	6.136
Size of legislature	50	49.00	424.00	147.6400	60.17890
Word count	51	691.00	14,452.00	5,899.2549	2,696.65100
Abuse not otherwise specified in regulation	42	0	1	.64	.485
Abandonment regulation	42	0	1	.17	.377
Emotional abuse regulation	42	0	1	.31	.468
Exploitation regulation	42	0	1	.64	.485
Neglect regulation	42	0	1	.62	.492
Physical abuse regulation	42	0	1	.31	.468
Self-neglect regulation	42	0	1	.33	.477
Sexual abuse regulation	42	0	1	.40	.497
Total definitions in regulation	51	0	8	2.82	2.805
Different investigators for child and adult	51	.00	1.00	.7255	.45071
Word count in definitions	51	.00	1,120.00	256.4510	228.78893
Percent elderly not living alone	51	4.10	11.90	9.2996	1.55373
Population density	51	1.10	9,316.40	361.3394	1,302.74744
Child poverty rate	51	7.30	31.10	15.5020	5.08258
Alcohol death rate	47	22.17	764.00	56.4745	106.41263

Child abuse rate	50	3.40	90.80	41.1940	18.66211
Health care providers	20	248.70	493,691.00	48,216.4775	111,461.72804
High school graduation rate	45	56.60	86.60	74.3200	7.19016
Median family income	51	72.10	65,521.00	44,428.7078	16,328.72719
Investigation rate	46	.50	12.10	5.4130	2.87886
Substantiation rate	37	.00	8.80	2.8162	2.38205
Substantiation/investigation ratio	35	.05	.80	.4474	.19259
Percent population elderly	50	.08	.22	.1630	.02636
Total legislators over 55	51	5.00	188.00	52.9412	28.67222
Democrats/size of lower chamber	50	.13	.92	.5153	.16345
Democrats/size of upper chamber	49	.09	.88	.5130	.16558
Same party controls both chambers	51	.00	1.00	.7647	.42840
Over-55 legislators/size of legislature	49	.21	.61	.3627	.09238
AARP lobbyists/legislator	49	.00	.27	.0440	.06533
Required to keep track of reports	49	0	1	.35	.481
Total Democrats in legislature	49	.11	.84	.5090	.15081
Total proportion of Democrats	49	.11	1.74	.8763	.52644
Ratio over 60 to under 18	51	.28	.97	.6441	.13078
Population over 60	51	53,026.00	3,595,658.00	873,734.8039	887,637.06610
Expenditures/elderly	31	.22	68.28	9.9724	12.99107
SSBG total spent on APS ($)	33	10,000.00	24,237,772.00	3,373,178.0303	5,263,145.10318
Percent of SSBG spent on APS	51	.00	43.70	3.6510	6.80422
All expenditures on APS ($)	30	176,470.59	276,470,588.24	56,826,906.9427	79,212,771.33362
Nursing home beds	51	749.00	181,863.00	36,857.7647	38,816.32429
Nursing homes beds/60+ population	51	.01	.11	.0420	.01744
Population under 18	51	.20	.32	.2557	.01891

Note. APS = adult protective services; AARP = American Association of Retired Persons; SSBG = Social Security block grant.

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Table 4. Determinants of Word Count of Statutes

	B	Standard Error	Significance
Proportion of legislators over age 55	−10,850.179	4,501.167	.020
AARP lobbyists/legislators	−2,918.734	5,981.132	.628
Same party controls both chambers	−1,555.329	888.474	.087
1 (Constant)	11,115.157	1,889.438	.000

Note. AARP = American Association of Retired Persons. Adjusted R^2 = .096.

The two variables of statistical significance were the proportion of the legislature made up of members over age 55 and whether the same party controlled both houses. We had thought that if many legislators were themselves concerned (because of their advancing age) about issues facing dependent adults, the statutes would be longer, but the sign was negative. This was contrary to our expectation. We surmise that these elder-dominated legislatures were trying to get other benefits. Perhaps, to the extent that they acted in self-interest, they were unconcerned about their own potential to be abused (since they are clearly competent to care for themselves at the time they serve).[39] Younger legislators might be more concerned with elder abuse because of the uncertainty they face concerning their own futures (that is, they do not know whether they will continue to be independent when they are old). They may also be more idealistic or more aware of the elder abuse phenomenon. Perhaps the older legislators are more beholden to the AARP's agenda (although the interaction terms we tried were not significant). If more compromise was necessary because different parties control each house, the statutes, as predicted, got longer.[40] A larger presence of AARP lobbyists did not affect the total word count, but the sign was also negative, contrary to our prediction, probably for one of the reasons given above for the relatively more elderly legislatures. (The AARP acts primarily as an interest group for the more affluent population over age 55, especially those who want to feel young. These people, like the people over 55 already serving on legislatures, are unlikely to be concerned about their own abuse and may be more concerned with keeping Social Security and Medicaid intact and reducing the cost of prescription drugs. They

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39. As discussed previously, we would not expect to find any legislator currently experiencing abuse. In fact, many of the APS statutes require that the victim be "dependent," that is, "unable to perform one of the major functions of everyday life."

40. The dummies for same party controls were zero for no and one for yes.

Table 5. Determinants of Substantiation Rate, Word Count Endogenous

Variable	B	Standard Error	T
Word count	.000528	.000276	.0652
Population density	.000138	.001527	.9287
Proportion age 60+ not living alone	.505189	.240085	.0438
Median family income	4.10738838E−05	2.6766E−05	.1354
Constant	−48.376092	22.810168	.0423

Note. Adjusted R^2 = .07799; system R^2 = .43181.

may feel that in strongly advocating these measures, they have already pushed for enough "elder interest" legislation.)

When word count is included in a two-stage least squares equation as an endogenous variable, with the substantiation rate as the dependent variable and using a number of socioeconomic variables as instrumental variables, the result is quite impressive (see Table 5). The system (or multiple) R^2 equals .43181, while the final equation has an adjusted R^2 of .07799.

Consistent with our predictions, a longer statute does produce a higher substantiation rate. The predicted word count of the statute was significantly (at .06) related to the substantiation rate. Perhaps this is because APS workers with more guidance from the legislature and more confidence that their work is important do a better or more enthusiastic job. The proportion of elderly living alone was negatively and significantly related to substantiations of abuse. Since we are talking about domestic abuse (many times by a coresident of the victim), the positive relationship is not surprising. Alternatively, it may simply indicate that where the elderly remain self-sufficient, they are at lower risk for abuse. An increase in population density, as expected, is associated with a higher substantiation rate. This can be seen as another "reporting variable," since it is more difficult for the isolated elder in a rural environment to report abuse. There was also a higher substantiation rate with increases in median family income. Again, the positive relationship may reflect the tendency to report or a greater confidence by APS workers that there will be social services to provide the elder at risk.

5.2. Definitions in the Regulations

Similarly, we can look at the components of the number of definitions in the regulations. For political variables, we are interested in things that

Table 6. Determinants of the Number of Abuse Definitions in State Regulations

Variable	B	Standard Error	Significance
High school graduation rate	.128	.343	.090
Expenditure on APS per 60+ population	2.814E−09	.081	.666
Population 60+ (%)	−23.279	−.179	.331
Nursing home beds per 60+ population	−27.223	−.196	.330
AARP lobbyists/legislator	−17.701	−.518	.016
Constant	−.476		.947

Note. APS = adult protective services; AARP = American Association of Retired Persons. Adjusted R^2 = .213.

might affect the behavior within the state agencies that write the regulations. We can explain the number of definitions that are included in the regulations (which will be our instrumental variable) as a function of the total percentage of the population that is elderly (which correlates significantly with total definitions at the .037 level of probability),[41] the high school graduation rate for the state, the ratio of AARP lobbyists to legislators (which might also indicate the interest group pressure put on the agencies, since many lobbyists operate in both political branches and frequently help draft regulations), and the total expenditures on APS interventions for the state. The adjusted R^2 for this equation, with Number of Definitions in Regulations as the dependent variable, is .213 (see Table 6).

In this equation, the significant predictors are the high school graduation rate, which is positively related, and the number of AARP lobbyists per legislator, which is also positive. Convincing a bureaucracy to expand on state legislation apparently requires both an educated electorate[42] and a concerted lobbying effort.

The next step was a two-stage least squares set of equations that predict the substantiation/investigation ratio, with the number of definitions in the regulations as an instrumental variable. This simple set of

41. Running this equation using the ratio of the over-60 to under-18 population produced an adjusted R^2 of .216. However, the coefficient on the ratio itself was not significant (.302). Using Percent Elderly in the Population and AARP Lobbyists/Legislator had an R^2 of .213 and coefficient on Percent Elderly of .318.

42. Education might proxy for wealth, which when per capita median income was substituted for it was only slightly less significant, at .084.

Table 7. Determinants of Substantiation/Investigation Ratio, Number of Definitions Endogenous

Variable	B	Standard Error	Significance
Total definitions in regulation	.042525	.020646	.0496
Percent of SSBG spent on APS	.009138	.008296	.2808
Population density	.000371	.000184	.0542
Constant	.212359		.105172

Note. SSBG = Social Security Block Grant; APS = adult protective services. Adjusted $R^2 = .131$; system $R^2 = .470$.

equations had an R^2 of .470, with an adjusted R^2 for the second equation (predicting the ratio) of .131 (see Table 7).

As we expected, the predicted value for total regulations had a significant and positive impact on the substantiation/investigation ratio. The population density was positive and significant (at the .05 level), and the percentage of SSBG spent on APS was positive, although not significant. As we saw in the earlier discussion, the denser the population, the more likely reporting will be followed by substantiation.

5.3. Different Investigators for Child and Elder Abuse

Even further down the administrative hierarchy sit the APS investigators. We predicted that the tendency for the state agency to require the same APS worker to investigate both child and elder abuse would influence the investigator's behavior, which in turn would affect investigation and reporting.[43] We would predict that more rural and less wealthy states would do this and that when the same investigator handled both types of abuse the ratios of both investigations and substantiations would decrease. The first step, again, was to predict which states had the different or specialized investigators for each type of abuse (Table 8).[44] Here the alternative of nursing home facilities might make a difference. One of the striking things about the social worker who confronts elder abuse is the fact that even if abuse is found, removing the elder from

43. In our coding, zero means that the same investigator handled both types of abuse and one means different or specialized investigators.
44. We utilized a logistic regression, since the state either does or does not have the same investigator, with a Cox and Snell R^2 of .225.

Table 8. Logistic Regression Determining Probability of State Using Different Investigator for Child and Adult Abuse

Variable	B	Standard Error	Significance
Nursing home beds/population 60+	−71.783	30.637	.019
Ratio of over 60 to under 18	6.035	3.777	.110
AARP lobbyists/legislator	6.092	8.133	.454
High school graduation rate	−.196	.101	.053
Child poverty rate	−.220	.131	.094
Constant	18.220	9.879	.065

Note. AARP = American Association of Retired Persons. Cox and Snell R^2 = .225.

the home will not always improve the elder's situation.[45] The nursing home numbers (nursing home beds per population over age 60 in the state) were calculated from the data that are available for each state on the Medicare Web site.[46] As the relative number of beds increased (and with it the clout of the nursing home industry), the tendency to require different (or specialized) investigators decreased, and this coefficient was statistically significant at the .02 level.[47] The variable for AARP lobbyists per legislator, while positive, was not significant, nor was the relative size of the elderly and child population. Two other positive and significant variables (both at the less than .10 level) were the high school graduation rate in the state and the child poverty rate. Presumably a more educated population would see the value of differentiating between child and adult abuse, while a state welfare bureaucracy overwhelmed by a high child poverty rate would choose not to spend the money on record keeping. More simply, poorer states will have lower graduation rates and more pressing problems than elder abuse. They may also have less of a progressive tradition of government social welfare activism.

Because a logistic and linear regression cannot be combined in the same system in a straightforward way,[48] we include a regression for the

45. This is in contrast to the current theories about child abuse, which mandate a relatively rapid removal from the situation at least in cases of serious abuse. Adoption and Safe Families Act, Pub. L. No. 105–89, 111 Stat. 2115, codified as amended, 42 U.S Code secs. 671, 675, 473A, 1320a-9. 629a (1994 and Supp. V 1995–2000). Still, many children would rather return to the parents who abused them than live with strangers, particularly in foster care. See, for example, Pagano (1999, p. 243).

46. See http://www.medicare.gov. These were gathered for each state by Dr. John Park of the Department of Public Health, University of Iowa, and totaled for each state and the District of Columbia by Brinig.

47. Again, thanks to the anonymous referee for making this suggestion.

48. The procedure we used is described in Maddala (1983, pp. 240–41).

Table 9. Substantiation Rate: Different Investigator, Endogenous

Variable	B	Standard Error	Significance
Different investigators for child and adult	1.759087	1.684145	.3052
Percent of SSBG spent on APS	.046152	.087144	.6006
Ratio of over 60 to under 18	−6.600161	2.904580	.0309
Constant	5.452712	1.840735	

Note. SSBG = Social Security Block Grant; APS = adult protective services. R^2 = .09; system R^2 = .423.

substantiation rate with the saved predicted coefficients from the first equation included as an independent variable in the second (see Table 9). The predicted value of having different investigators for children and elders translates into the substantiation rate[49] in the hypothesized positive way but was not statistically significant. The amount of the SSBG spent on APS was also not significant (although again, it was positive as expected). The one significant (at .03 level) variable was the ratio of the elderly to the child population, and this was negative. This was what we hypothesized, since, holding the tendency to have specialized investigators constant, a larger percentage of the elderly in the population should heighten social services' awareness of this population at risk.

5.4. Keeping Track of All Reports

We would also predict that those investigators who are required to keep track of all reports of abuse would have higher substantiation rates. Again, the first step is to determine the equation for keeping track of all reports. The Cox and Snell R^2 (since, again, it is a binary dependent variable) is .348 (Table 10). Both the AARP and nursing home interest groups showed significant and positive relationships with the tendency to require that reports be tracked. The percent elderly in the population was not significant, nor was the expenditure on APS per capita. Table 11 shows a two-stage least squares of substantiation rates, holding the requirement that APS keep track of all reports endogenous.[50]

The predicted value of Keep Track, as predicted, was positive. How-

49. The two-stage least squares equation had the significant variables from the logistic regression included: nursing home beds per 60+ population, ratio over 60 to under 18, high school graduation rate, and child poverty rate. The system R was .423, while the R value for the substantiation rate was .09.

50. The R^2 of this equation was .238.

Table 10. Determinants of Rule That Adult Protective Services Track All Reports

Variables	B	Standard Error	Significance
AARP lobbyists/legislator	.178	.084	.034
Nursing home beds/60+ population	54.128	31.161	.082
Percent elderly population	−36.685	32.404	.258
Rate of expenditures on APS	.000	.000	.217
Constant	2.525	4.982	.612

Note. AARP = American Association of Retired Persons; APS = adult protective services. Cox and Snell R^2 = .247.

ever, it was not significant, nor were two of the other variables in the equation: median family income and the child abuse rate. All were positive as might be expected, with the child abuse rate probably mirroring the amount of actual abuse. The only significant predictor, perhaps not surprisingly, was the amount expended on APS per elderly population. As the median income increases, so does the substantiation rate. Likewise, the rate of substantiation increases with the amount expended on the effort of APS. When there is more child abuse in the state (holding median family income constant), there are relatively more substantiations.

6. CONCLUDING REMARKS

We have reported regressions at length to show the importance of the political climate behind making law on any level. Politics matters, regardless of whether the public actor is important and elected or outside the public eye and underpaid. We have demonstrated that interest groups and the personal interests of legislators did not affect the legislation in the ways we might first have suspected. That is, because the people making law (or lobbying for the elderly) are not themselves dependent, they are apt to prefer programs that will benefit themselves in early retirement. At bottom, we find no real pressure group for the aged and dependent population that does not reside in nursing homes.

Nonetheless, the way laws are drawn and implemented does matter to the people they are designed to serve. We suggest that states carefully examine the laws they develop regarding elder abuse and particularly give attention to definitions in the regulations. States with a more highly educated population are apt to do this, but lobbying groups (whether

Table 11. Determinates of Substantiation Rates: Rule Requiring Adult Protective Services to Track All Reports, Endogenous

Variable	B	Standard Error	Significance
Keep Track	.551	1.885	.774
Median family income	4.200E−06	.000	.888
Rate of expenditures on APS	1.890E−08	.000	.017
Child abuse rate	.022	.020	.300
Constant	.280	1.616	.864

Note. APS = adult protective services. R^2 = .238.

the AARP or nursing home administrators) have no significant effect, and a negative one at that. Whenever there is money to achieve this result, we feel that it is critical to have different investigators who attend to children and elders at risk for abuse.

Certain features of the law that governs APS affect elder abuse interventions. Specificity, requirements of APS specialization, and mandates that abuse be tracked from the reporting stage add accountability and expertise to the system.[51] Here, at the regulatory level, the AARP lobbyists do at least seem to be working in the same direction as the affected population, sometimes significantly so.

While we already have data to analyze the effects of various socioeconomic variables on identified outcome measures, we also stress the need to be more precise about what "report" means as well as take into account the way individual APS offices implement the given state legal mandates. While we realize that because of underreporting as well as the differences in state definitions of abuse, we cannot claim to have counted all abuse in the United States, we have established a baseline so that future studies can measure the impact of change on abuse investigations and substantiations. Because our data are the first collected on the local reporting level, we are closer than other studies in knowing the "gold standard"—the actual amount of domestic elder abuse. Future studies might collect similar data for institutional abuse and should reexamine the legal questions we have addressed from the perspective of the APS workers.

51. Reasons why this might improve performance can be found in Rachlinski and Farina (2002, pp. 588–92).

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